

# Status of Environmental Education in Virginia

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## Summary:

In 2000 the Commonwealth established "Virginia Naturally," as the state's official environmental education (EE) initiative.

[Virginia Naturally](#) (VaN) has several essential components that contribute to its robust support and effectiveness:

- a [business plan](#) or master plan adopted in 2003 defining roles and goals, with specific, measurable targets
- a [Mini-grants program](#) for schools and EE providers (>\$500,000 over last 8 years has been awarded) for Meaningful Watershed Educational Experiences (MWEE)
- a voluntary [leadership professional development program](#) (self-certification)
- incorporation of statewide environmental priorities into the K-12 standards-based programs (watershed\* and pollution prevention education into science, air pollution prevention into drivers education and now sustainability and climate science are being considered in new standards).
- [11 regional EE teams](#) across the Commonwealth
- Approximately [900 partners](#) receive information, training and resources through the electronic network.
- the [Virginia Office of Environmental Education \(VOEE\)](#) at DEQ in 2001 with 5 full-time, 1 part-time staff



*\*In 2000 Virginia signed the [Chesapeake Bay 2000 Agreement](#), a regional compact that includes several education goals, especially the goal "Beginning with the class of 2005, provide a meaningful Bay or stream outdoor experience for every school student in the watershed before graduation from high school."*

Progress on Virginia Naturally was stalled from 2002-2004 due to limited staff resources at VA Office of EE. The office of 3 people, all grant funded, were unable to devote much time to managing these statewide initiatives. An EPA grant in 2005 helped to bridge the gap to continue the VaN program.

Two state positions were added to address community education and involvement. A second grant in 2007 helped regional teams to become established. Two positions were eliminated in 2008, and one program added. Currently the office is comprised of 3 full-time and 2 part-time employees.

## Structural Components:

1. *State EE Board:* The [Virginia Environmental Education Commission \(VEEC\)](#) was appointed by Governor Gilmore in 2000 and subsequently reappointed by Governor Warner 2002. The committee included school teachers and administrators, university and business representatives, legislators, state agency representatives, and leaders from nonprofit conservation organizations. They identified needs and helped set priorities for Virginia. The needs and priorities are currently outlined in the state master plan.
2. *State EE office:* Upon earlier recommendations by the Governor's Advisory Committee, the Department of Environmental Quality (DEQ) bolstered its program and created the [Virginia Office of Environmental Education \(VOEE\)](#). The purpose is to assess the status of environmental literacy; implement Virginia's business plan for EE; administer a new mini-grants program; promote and assist in the development of EE in Virginia; act as a coordinating clearinghouse; develop, implement, evaluate, and market EE programs and services, to coordinate and offer professional development opportunities on a regular basis, such as [annual EE conferences](#).

3. *State-level EE centers/regional offices:* One of the purposes of the Virginia Naturally network is to build local capacity for delivering high quality EE. 1. Through an EPA grant, VOEE worked to establish [local networks](#) and to identify resources which can assist educators and administrators in the incorporation of EE (starting with a "meaningful outdoor experience") into district and school curriculum, resource libraries, and community restoration projects.
4. *State EE Interagency Committee:* The [Virginia Resource-Use Education Council](#) (VRUEC) is a committee of more than 25 state and federal agency representatives, including the Department of Education and Virginia colleges and universities. The primary purpose is to collaborate and leverage resources for teacher training. A subcommittee of VRUEC serves as the Chesapeake Bay workgroup.
5. *Computerized networking system for EE materials and services:* [The Virginia Naturally web site and its searchable database](#), the Environmental Education Directory (EED), provide access to EE resources, events and funding opportunities. Hits to these pages average about 10,000 per month and 1,200 downloads/month.

#### Environmental Education (EE) Program:

6. *State EE master plan:* The 2003 [plan](#) needs updating to account for the progress made, the current budget situation and new priorities. Annually, the VRUEC reports on the status of the plan to the Secretaries of Natural Resources, Education, and Agriculture & Economic Development.
7. *State Requirement for K-12 Environmental Education Instruction:* Virginia's academic standards, the Standards of Learning for Science,



are reviewed every seven years. They provide the legal requirements that school districts and K-12 teachers incorporate EE into their existing curriculum. New standards in Science (6<sup>th</sup> grade, Life Science, Earth Science and Biology) have added rigorous watershed concepts such as water quality monitoring; and Chesapeake Bay ecology to the

- content knowledge student should know. Climate science is recommended for the current update.
8. *Coordinated teacher in-service training in EE:* A wide variety of professional programs such as Projects [WET](#), [WILD](#), [Learning Tree](#), [WOW!](#), [Project Underground](#), [Save Our Streams](#) and [Globe](#) are offered by state agencies and coordinated by the Virginia Resource-Use Education Council. Most of these programs rely on grant funds and volunteer instructors to implement these programs. The capacity to deliver these programs to school divisions in Virginia varies tremendously depending upon the volunteer resource base. Currently there is a high need to train more local instructors in WET, WILD, WOW and [YBC](#). With budget reductions, state staff and materials have been reduced. Demand continues to grow, however.
9. *Training in EE for those providing EE professional development to classroom teachers and non-formal educators:* The business plan recommended ways to strengthen this area. Virginia's environmental education conference has provided training on an annual basis (has been held every year since 1989 except 2003). Since turnover in non-formal programs is high, there is a constant need to offer training to non-formal educators and resource managers about EE in general, as well as specific topics such as MWEE a meaningful outdoor experience and how to infuse the experience into the curriculum and meet state academic standards. DEQ has developed a professional self-certification program ([Environmental Education Leadership program](#)) to encourage professional development of natural resource educators who can help deliver high quality EE.
10. *Training in EE for university faculty (teacher educators):* This business plan recommends several specific items including bringing educators into the Virginia Naturally (EE) network. No work has been done in this area by VOEE but several regional teams have incorporated them into local networks.
11. *State EE curriculum guide and other state publication providing direction to the development of an EE program at the school district level:* Four on-line resources currently exist: [VA Natural Resources Education Guide](#), [Science Implementation Guidelines](#), the [Criteria for Exemplary EE in Schools](#), and the [Definition of Meaningful Watershed Educational Experiences](#). Essential skills are found within the science, geography, and social studies

state Standards of Learning and the implementation/curriculum guides. These documents provide information to non-formal community educators, resource professionals, classroom teachers and university faculty. Professional development or training helps disseminate these materials.

12. *EE correlations to state content standards:* These exist for major state supported programs, such as Projects [WET](#), WILD, and Learning Tree as well as for individual programs offered by nonformal EE providers.
13. *EE model or resource schools:* Sixty-five Virginia Naturally [Exemplary Schools](#) have been recognized. Two Chesapeake Bay/Oyster Restoration model schools were developed through Mary Baldwin College.



### Funding Components:

Funding components are the most challenging aspect to delivering EE in Virginia. Most projects and programs are funded through partnerships and a creative mix of private and public funding. In addition to general revenue, several state sources exist:

14. *Fees, Fines, Taxes and/or Lottery:* A sales tax on fast food, soft drinks and beer provides funds to local [litter prevention and recycling](#) programs, many of whom offer education and outreach programs. The competitive portion of this program, which funded education projects, was eliminated in

2009. The [Chesapeake Bay license plate](#) provides modest funds to schools and nonprofits for Bay education and restoration projects (\$80- 100,000 per year approximately to 30-40 applicants).

15. *Public/Private Grants and Donations:* The [Virginia Environmental Endowment](#) provides grants of \$5,000 for Environmental Education projects (primarily to schools) throughout the Commonwealth for over 30 years. They have consistently supported statewide projects such as the EE directory, the annual EE conference, and recently the [Classroom mini-grants program](#) (\$45,000 for three years) for meaningful watershed education. The Virginia Manufacturers' Association, Honeywell, Smithfield Foods, Inc. and International Paper have made major contributions to specific education projects such as teacher information kits. Substantial funding comes from federal [NOAA BWET](#) to support meaningful watershed educational experiences. Last year nearly \$1 million was awarded.
16. *EE Grants:* Mini-[grants programs](#) of \$500 - \$2,500 for Classroom and Partners established.
17. *EE Trust Fund:* The [Foundation for Virginia's Natural Resources](#) recently established to accept and distribute more private donations.
18. *General Revenue:* Dedicated funding from the legislature varies year to year. In addition to funding for the VOEE through the Department of Environmental Quality, the legislature allocates approximately \$39,000 to the Chesapeake Bay Foundation for "On-the-Water" education. Other state and local agencies provide [EE programs](#), such as Project WILD, Learning Tree, Your Backyard Classrooms based on the agency's funding base.

### Notes:

Assessment	Ranking				Comments
	N/A	A	B	C	
State EE Board					
State EE office					
State-level EE centers/regional offices					
State EE Interagency Committee					
Computerized networking system for EE materials and services					
State EE master plan					
State Requirement for K-12 Environmental Education Instruction					
Coordinated teacher in-service training in EE					
Training in EE for those providing EE professional development to classroom teachers and non-formal educators					
Training in EE for university faculty (teacher educators)					
State EE curriculum guide and other state publication providing direction to the development of an EE program at the school district level					
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Fees, Fines, Taxes and Lottery					
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EE Grants					
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